AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

Claims 1-17 (canceled).

Claim 18 (new): A titanium alloy part having a compressive stress of approximately 270 MPa or more within a depth of about 100 μm from a surface thereof.

Claim 19 (new): The titanium alloy part of claim 18, further comprising a surface region extending from the surface to a depth of about 100 μm, and an internal region disposed internally relative to the surface region, wherein the surface region includes a modified layer containing more α phase than does the internal region, the modified layer accounting for a proportion of about 10 vol% or less of the surface region.

Claim 20 (new): The titanium alloy part of claim 18, wherein the surface has a maximum surface roughness Rt of about 20 μm or less.

Claim 21 (new): The titanium alloy part of any of claim 18, wherein the titanium alloy part contains about 50 vol% or more of β phase at room temperature.

Claim 22 (new): The titanium alloy part of any of claim 18, wherein the titanium alloy part is a spring.

Claim 23 (new): The titanium alloy part of any of claim 18, wherein the titanium alloy part is a suspension spring for a vehicle.

Claim 24 (new): The titanium alloy part of any of claim 18, wherein the titanium alloy part is one selected from the group consisting of a valve spring for an engine, a

connecting rod for an engine, and a structural part for an aircraft.

Claim 25 (new): An engine comprising the titanium alloy part of any of claim 18.

Claim 26 (new): A vehicle comprising the titanium alloy part of any of claim 18.

Claim 27 (new): A method for producing a titanium alloy part comprising:

step (A) of providing a shaped titanium alloy part;

step (B) of subjecting the shaped titanium alloy part to a shot peening using a first shot medium; and

step (C) of mechanically or physically removing at least a part of a modified layer created in a surface region of the shaped titanium alloy part as a result of step (B).

Claim 28 (new): The method for producing a titanium alloy part of claim 27, wherein step (C) comprises shooting a second shot medium against a surface of the shaped titanium alloy part, the second shot medium having a higher hardness than that of the first shot medium.

Claim 29 (new): The method for producing a titanium alloy part of claim 28, wherein the second shot medium has a Vickers hardness of about 1,000 or more.

Claim 30 (new): The method for producing a titanium alloy part of claim 28, wherein the second shot medium contains SiO_2.

Claim 31 (new): The method for producing a titanium alloy part of any of claim 27, wherein step (C) removes the shaped titanium alloy part at a depth of about 20 μm to about 40 μm from the surface.

Claim 32 (new): The method for producing a titanium alloy part of any of claim 27, wherein the shaped titanium alloy part has a Vickers hardness of about 370 to

about 470.

Claim 33 (new): The method for producing a titanium alloy part of any of claim 27, wherein step (A) comprises:

step (A1) of winding around a wire material of a titanium alloy to obtain a shaped titanium alloy part having a coil shape; and

step (A2) of subjecting the shaped titanium alloy part to an aging treatment.

Claim 34 (new): The method for producing a titanium alloy part of any of claim 27, wherein step (B) comprises shooting the first shot medium against the shaped titanium alloy part via centrifugal force, compressed air, or hydraulic pressure.